corticosteroids were more widely used (46.5%/26.8% vs. 12.3%/11.0%) and retinoids were less commonly used (5.1% vs. 18.0%). UK physicians were less likely to prescribe a biologic-treatment before trying >=1 other systemic-treatment (1.8% vs. 8.5%), and to wait longer after diagnosis to initiate biologic-therapy (25.8movs. 20.1mo); in Germany, patients were more likely to have tried 3-5 other systemic-treatments before initiating biologic-treatment (28.0% vs. 14.2%); patients in France were the most likely to initiate a biologic without trying another systemic-treatment first (11.2% vs. 8.5%). Patients in Germany were started on biologics later on average (25.8mo after diagnosis vs. 14.0mo). The average flares in past-year was highest in Germany (1.4 vs. 0.9). Average current PASI-score (26.4 vs. 16.0) and BSA-score (22.8 vs. 19.5) were highest in Germany. In France, 41.2% of patients had not had a PASI score done past year (vs. 23.3%). In Germany, 56.0% of patients had severe/terminal disease severity at biologic-therapy-initiation (vs. 47.8%). **CONCLUSIONS:** Among psoriasis patients receiving their first biologic-therapy, treatment patterns and disease severity varied across the EU5. Factors influencing the observed variations in treatment patterns and outcomes warrant further scrutiny to decrease patient disease burden.

PSY121

APOPTOSIS AND OXIDATIVE STRESS INDUCED BY EXPOSURE OF MICROWAVE RADIATION IN RAT THYMUS: MODULATORY EFFECT OF MELATONIN

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OBJECTIVES: Exposition to microwave radiation (MW), from mobile phones, satellite communications, radio relays, radars and microwave devices in medicine induce disturbances in thymus. The pineal secretory product, melatonin (Mel), exerts a veriety of effects on the immune system. The aim of the present study was to evaluate the effect of melatonin on apoptosis and oxidative stress parametars in thymus tissue of rats after 40 days long exposure to MWs. **METHODS:** Wister rats were divided in 4 experimental groups: I (control), II (Mel group) - rats treated with Mel every day (2 mg/kg b.w., i.p), III (MW group) - rats exposed to MW (4 h/day), IV (MW+Mel) - rats treated with Mel every day (2 mg/kg b.w., i.p) and exposed to MW radiation (4 h/day). Ten animals from 4 group were successively sacrificed after 40 days of the experiment. MW was produced by a mobile test phone (SAR = 0.043-0.135 W/kg). **RESULTS:** The current study results demonstrate that MW significantly increased thymocyte apoptosis, detected using the Annexin V-FITC/PI detection kit ($p<0.001$). DNA fragmentation in thymocytes injury of MW is probably triggered by the increase activation of alkaline-DNase I (caspase 3-activated) and acid-DNase II ($p<0.05$). A significant increase in the thymus malondialdehyde (MDA) and carbonyl group concentration ($p<0.001$), and decreased activity of catalase ($p<0.001$) was registered during exposure. Melatonin was found to be effective on rat thymocyte: (1) decreased apoptotic rate of thymocytes ($p<0.001$), (2) effect on terminal apoptotic reaction, because of the decrease DNase I and DNase II activity ($p<0.01$), (3) decreased MDA and carbonyl group levels ($p<0.01$), (4) increase activity of catalase ($p<0.05$), comparated with MW group. **CONCLUSIONS:** Having in the mind obtained results we can conclude that melatonine exerts protective effects on rat thymocyte by preventing apoptosis and oxidative stress disturbances in rats' thymus under exposure of MW.

RESEARCH POSTER PRESENTATIONS - SESSION IV

RESEARCH ON METHODS STUDIES
RESEARCH ON METHODS – Clinical Outcomes Methods

PRM1

SYMTOMATIC FACTORS IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER (MDD): RESULTS FROM AN OBSERVATIONAL STUDY

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OBJECTIVES: To explore the existence and clinical implications of symptomatic factors in patients with major depressive episodes. **METHODS:** Data are from a 6-month prospective, non-interventional, observational study that included 1,549 MDD patients without sexual dysfunction in twelve countries. Depression severity was measured using the Clinical Global Impression (CGI) and the 16-item Quick Inventory of Depressive Symptomatology Self-Report (QIDS-SR_{16}). Pain and quality of life were measured using the pain related items of the Somatic Symptom Inventory (SSI) and the EuroQoL-5D, respectively. The QIDS-$SR_{16}$and the SSI items were jointly included in a factor analysis. Exploratory factor analysis (EFA) was conducted in a randomly selected half of the sample and confirmatory factor analysis (CFA) in the remaining half. **RESULTS:** The EFA showed that a four factor model explained the data apropriately (RMSEA 0.041, 90%CI 0.034- 0.048; CFI 0.979). The four factors were mood (feeling sad, concentration/decision making, self criticism, suicidal thoughts, interest in people or activities, energy/fatigability, psychomotor retardation and agitation); sleep (initial, middle insomnia, early awakening and sleeping too much); appetite and weight, and pain (muscle soreness, cramps in abdomen, pain in lower back, pain in heart or chest, pain in joints, neck pain, headache). The CFA showed good fit indexes for this four-factor model (RMSA 0.054, 90% CI 0.049-0.059; CFI 0.954). There was a highly statistical significant correlation (Spearman) between each of the four factors and CGI severity score and quality of life at each of the visits, with higher scores in the factors (higher severity) associated with higher CGI and lower quality of life ($p<0.001$, all comparisons). **CONCLUSIONS:** Considering the results presented, the data reasonably support that pain symptoms be included in the evaluation of patients with major depression. More severe pain symptoms are associated to higher severity of depression and lower quality of life.

PRM2

PREDICTORS OF FUNCTIONAL DISABILITY IN PATIENTS WITH CHRONIC LUMBOSACRAL RADICULAR PAIN

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OBJECTIVES: Chronic lumbosacral radicular pain has significant morbidity and burden to the society. The objective of this study was to assess the functional disability and factors affecting it in patients with chronic lumbosacral radicular pain. **METHODS:** We performed an observational cross sectional study in a public tertiary care hospital in north India. Adult patients (18 and 75 years), with >12 weeks of low back pain, without any co-morbidities were included in this study. Data regarding socio-demographics, duration of low back pain, prescribing pattern and depression collected at baseline. Pain assessed using visual analogue scale (VAS), functional disability using modified oswesrty disability questionnaire (MODQ). Patients also asked for health care utilization at the end of study. Predictors of high disability were analysed using multivariate regression analysis. **RESULTS:** A total of 246 patients (51% males and 49% females) with mean age of 44.9 (12.25) years were included for final analysis. Mean VAS and MODQ scores at baseline are 72.3+12.5 and 48.3+11.2 respectively. Based on disability scores, 62% of patients found to be crippled whereas 62% and 24% of patients fall in severe and moderate disability category respectively. VAS and MODQ scores were positively correlated ($r=0.84$, $p<0.05$). Multi factorial analysis reveals that severe pain (higher VAS scores), high duration of pain, older age, over-weight, patients from urban region and depression were significantly associated with high disability. **CONCLUSIONS:** Our study results suggest that chronic lumbosacral radicular pain patients suffer with sever disability. Severity of pain was significantly correlated with levels of disability.

PRM3

HIERARCHICAL NETWORK META-ANALYSIS INCORPORATING ORDERING CONSTRAINTS ON INCREASING DOSES OF INTERVENTIONS - APPLICATION TO OVERACTIVE BLADDER SYNDROME

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BACKGROUND: For the conservative treatment of Overactive Bladder (OAB) symptoms, the National Institute for Health and Care Excellence (NICE) in the UK currently recommends a course of supervised pelvic floor muscle training, behavioural therapy, anticholinergic medication, sacral nerve stimulation, and more recently, botulinum toxin type A (BoNTA) and Mirabegron. Given the large number of interventions and relatively few primary trials, network meta-analyses (NMAs) produce considerable uncertainty in the estimated treatment effects and consequently, there is little evidence of the most clinically effective intervention. **OBJECTIVES:** To evaluate the use of hierarchical NMAs incorporating ordering constraints on increasing doses in order to identify the most effective intervention for the treatment of OAB symptoms. **METHODS:** Using Bayesian Markov Chain Monte Carlo methods, we apply a 3-level hierarchical NMA that accounts for both the correlation between treatments within the same class, as well as the residual between-study heterogeneity. We further extend this model to incorporate ordering constraints on increasing doses of the same intervention. We apply the methods to a dataset obtained from a systematic literature review of randomised controlled trials evaluating interventions for OAB syndrome. The primary outcomes of interest were mean change from baseline for voiding, urgency, and incontinence episodes. **RESULTS:** The dataset includes 78 trials comparing 39 interventions that can be further categorised into 10 classes of interventions, including placebo. For voiding, and urgency episodes, BoNTA 200u was the most effective intervention with estimated mean reduction of -2.24 (95% CrI: -2.95, -1.48), and -2.6 (95% CrI: -3.46, -1.7) episodes relative to placebo, respectively. BoNTA 300u was the most effective intervention for reducing incontinence episodes with an estimated mean reduction of -1.81 (95% CrI: -2.39, -1.33) episodes relative to placebo. **CONCLUSIONS:** Use of hierarchical NMAs, incorporating ordering constraints, increases the precision in the effect estimates but maintains the interpretability of individual interventions. BoNTA was found to be the most effective intervention for reducing symptoms of OAB.

PRM4

TREATMENT EFFECT HETEROGENEITY IN CLINICAL TRIALS: AN EVALUATION OF 13 LARGE CLINICAL TRIALS USING INDIVIDUAL PATIENT DATA

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OBJECTIVES: Using randomized clinical trials (RCTs) for clinical decision-making necessitates making decisions for individuals based on average treatment effects. While many assume important patient variation in treatment effects, identifying patients most likely to benefit is problematic. Stratifying patients by their risk of the primary outcome was proposed as a method to identify high versus low benefit patients. **METHODS:** From publically available sources, we identified 13 large RCTs with greater than ~1000 enrollees and overall statistically significant results. We derived Cox or logistic regression models using established risk factors blinded to treatment assignment and stratified the patient population into quartiles of risk for the outcome. Treatment effect within each risk quartile was estimated on relative and absolute scales. Heterogeneity of treatment effect (HTE) was evaluated statistically by testing for an interaction between treatment and the linear predictor of risk, and by comparing hazard (or odds) ratios and absolute risk reduction in the extreme risk quartiles. **RESULTS:** Among 19 unique treatment comparisons analyzed, there was no apparent relationship between baseline risk and the hazard (or odds) ratios across trials; only 1 of 19 analyses had a significant interaction between treatment and baseline risk on the proportional scale. The difference in the log hazard ratio between the extreme risk quartiles ranged from -0.89 to 0.60 (median=0.03; inter-quartile range (IQR) =-0.4-